



VIA EXPRESS MAIL #EL921977343US  
**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Hiroshi Akimoto and Oleksandr v. Monasyrskyi      Filing Date: 7/15/03  
Title: **MOTION COMPENSATION METHOD  
FOR VIDEO SEQUENCE ENCODING  
IN LOW BIT RATE SYSTEMS**      Group Art: Unknown  
Examiner: Unknown  
Serial No.: 10/620,879  
Docket No.: SCT105U

Office of Petitions  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION OF WILLIAM L. HAYNES**

I, William L. Haynes, am competent to make the following declaration and state as follows:

1. I presently reside in the Boston, Massachusetts area. I was an associate attorney, employed at Garrison & Associates PS, located at 2001 Sixth Avenue, Suite 3300, Seattle, WA 98121-2522 at the time the above-identified patent application was filed, which was July 15, 2003. I am one of the attorneys of record.
2. I am a member of the Bar of the State of Washington.

Docket No.: SCT105U

3. I prepared the above-identified patent application for filing in the United States Patent and Trademark Office. On July 15, 2003, I reviewed all the documents listed on our document inventory, a copy of which is attached as Exhibit 1, to this declaration.
4. Ten (10) sheets of drawings, copies of which are attached to this declaration as Exhibit 2, were a part of the patent application documents I reviewed. I executed the Transmittal of New Patent Application for filing in the United States Patent and Trademark Office, which was prepared by my legal assistant, Jolene McCracken, a copy of which is attached to this declaration as Exhibit 3. On July 15, 2003, I instructed Ms. McCracken to make copies of the application documents for our file and mail the above-identified patent application, including the required drawings, filing papers and fees, by Express Mail No. EL529896256US on July 15, 2003 to the United States Patent and Trademark Office.

I declare, under penalty of perjury, that the foregoing is true and correct, and all statements made of my own knowledge are true and all statements made on information and belief are believed to be true.

June 8, 2005  
Date

William L. Haynes  
William L. Haynes



Applicants: Hiroshi Akimoto and Okeksandr v. Monasyrskyi  
Title: Motion Compensation Method for Video Sequence Encoding in Low Bit Rate Systems  
Docket No.: SCT105U

The U.S. Patent and Trademark Office Date Stamp Affixed Heron Will Acknowledge Receipt of the Following:

- 1.) Transmittal of New Patent Application (5 pages);
- 2.) Combined Declaration and Power of Attorney (2 pages);
- 3.) Credit Card Authorization Form in the amount of \$375 (1 page);
- 4.) Utility Patent Application (22 pages);
- 5.) Figures (10 sheets); and
- 6.) Notice of Recordation (1 page);
- 7.) Assignment (2 pages);
- 8.) Credit Card Authorization Form in the amount of \$40 (1 page); and
- 9.) Return Receipt Postcard

Mailed July 15, 2003 via Express Mail No. EL529896256US  
wlh/jm



INPUT AND OUTPUT STREAMS OF FRAME.

FIG.1

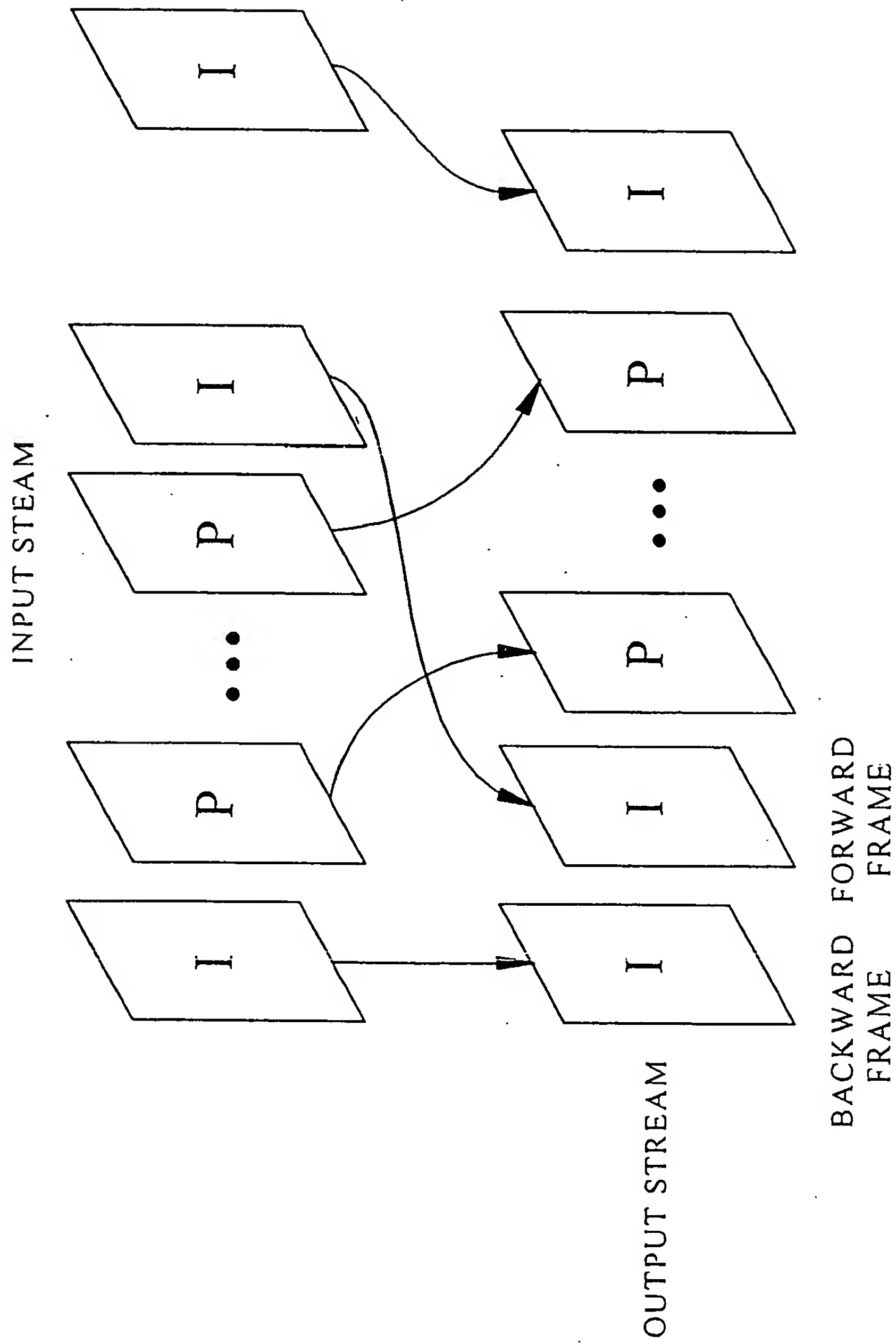
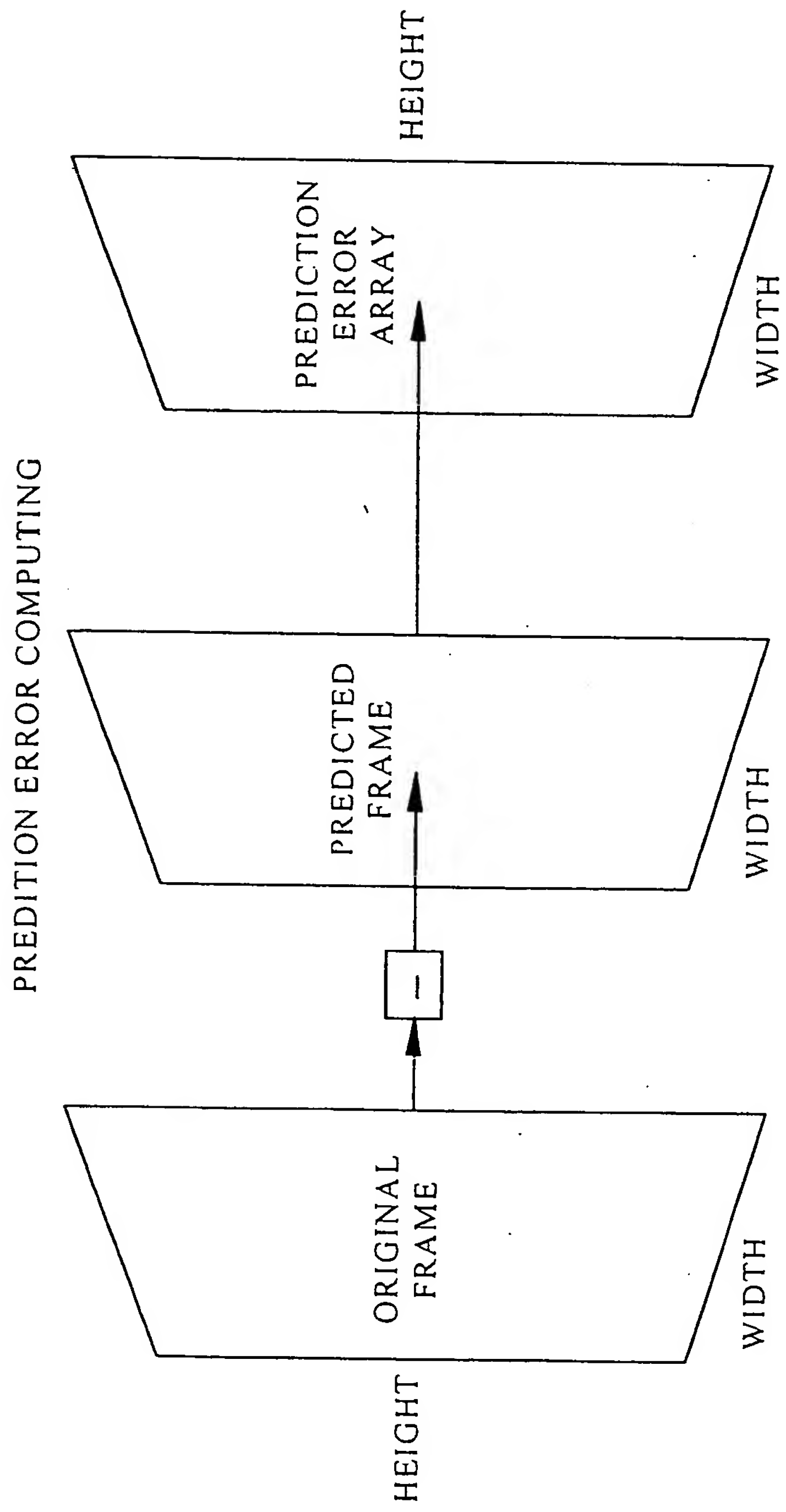


FIG.2



# MOTION COMPENSATION SCHEME

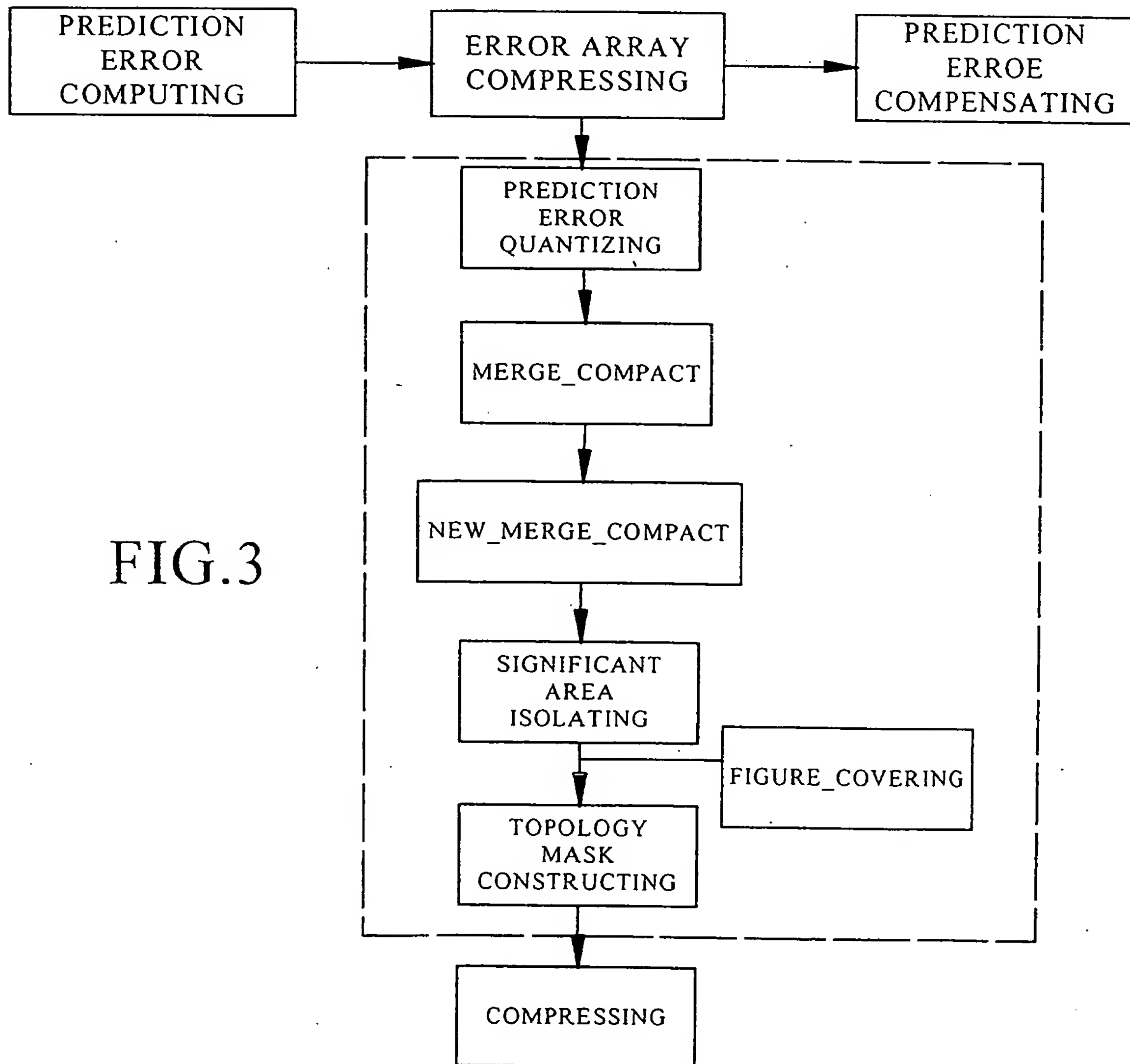
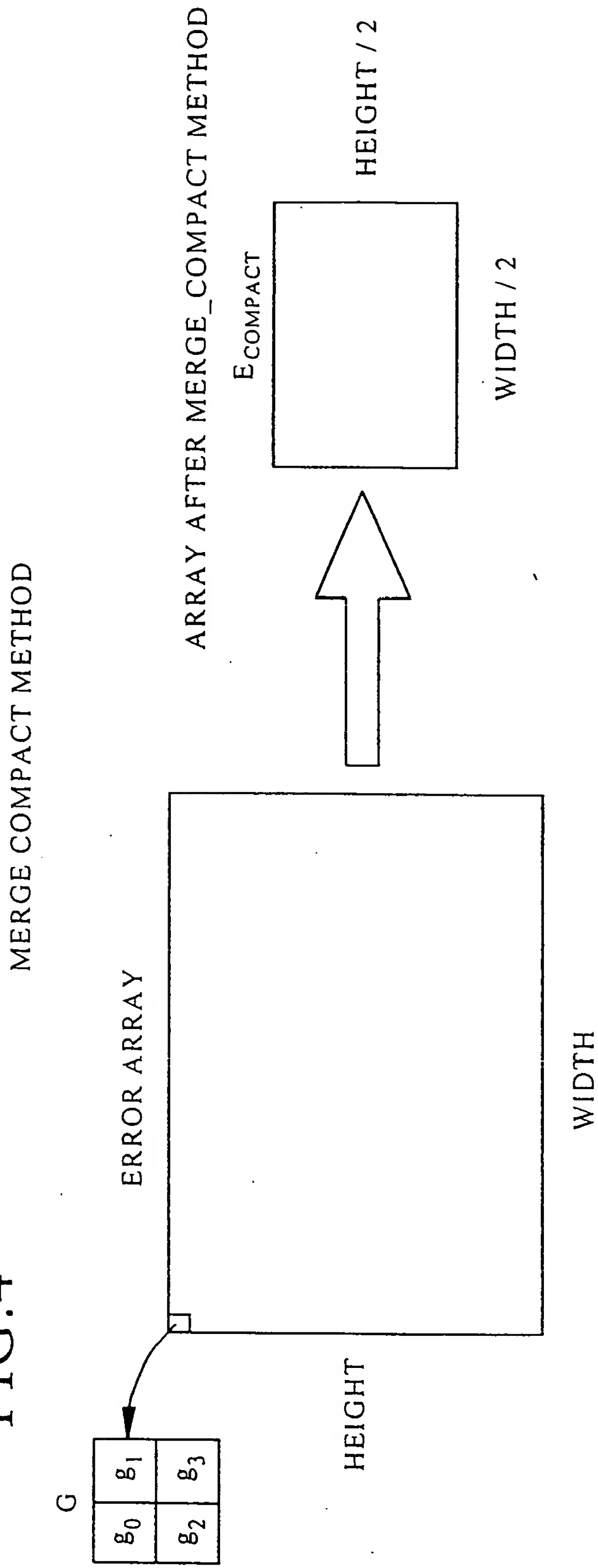


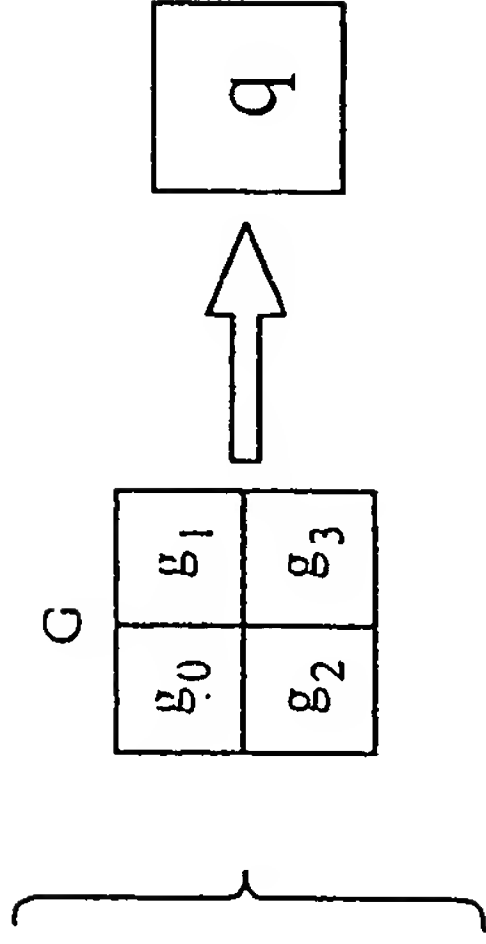
FIG.3

FIG.4



$E_{COMPACT}$  FORMING CONDITIONS:

1.  $g_0 = g_1 = g_2 = g_3 = x \Rightarrow q = x$ .
2.  $g_i > 0, i=0,3 \Rightarrow q = g_{\min}$ .
3.  $g_i < 0, i=0,3 \Rightarrow q = g_{\min}$ .
4.  $g_i < 0 \& g_i > 0 \parallel g_i = 0, i=\overline{0,3} \Rightarrow q=0$ .



# NEW\_MERGE\_COMPACT METHOD

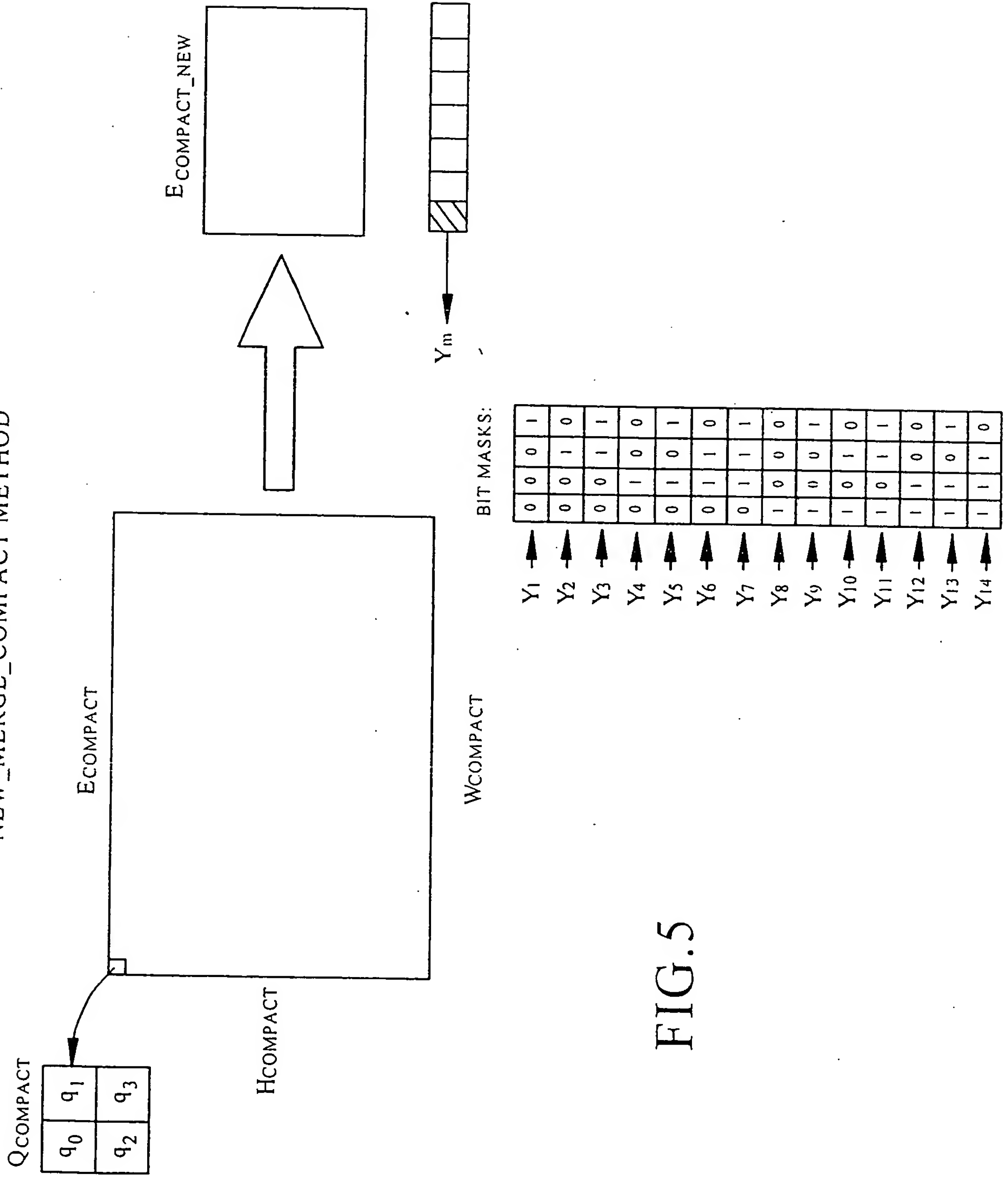


FIG.5



# FIG.6

## NEW\_MERGE\_COMPACT METHOD EXAMPLE

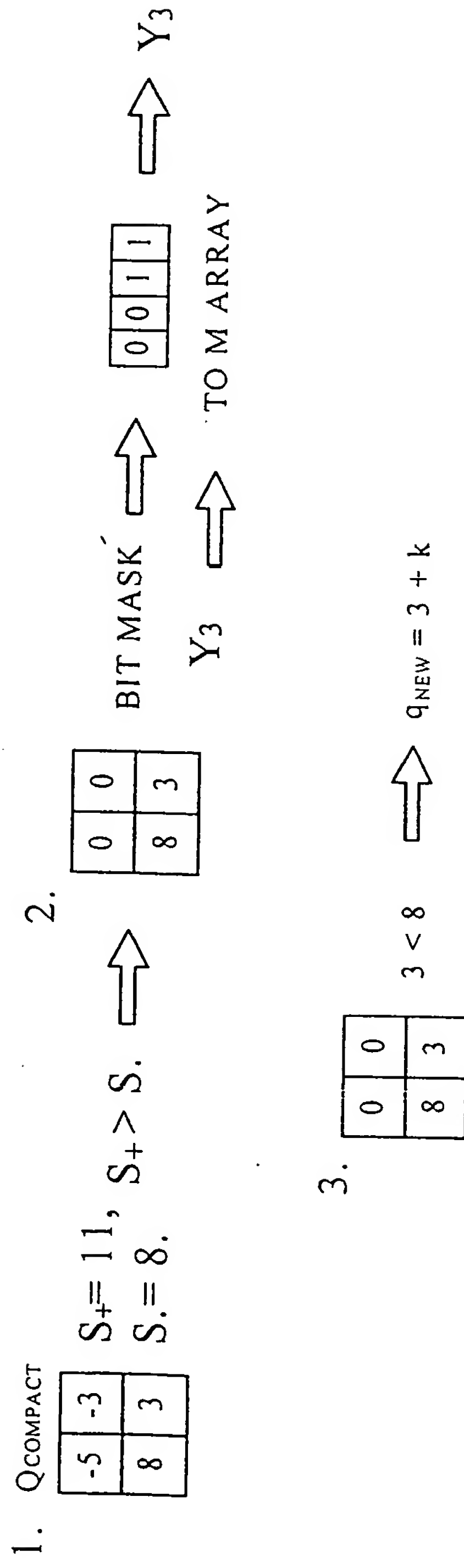


FIG. 7

SIGNIFICANT AREA ISOLATING

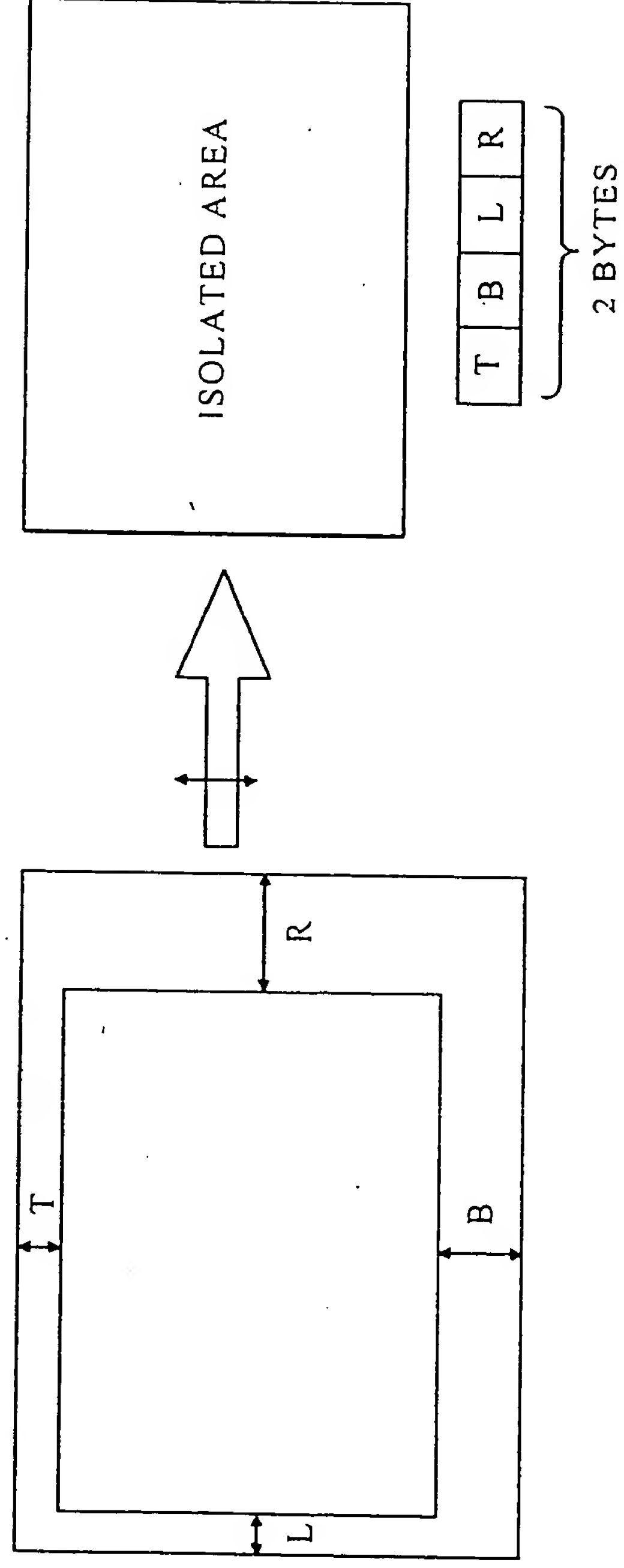


FIG.8

FIGURE COVERING METHOD

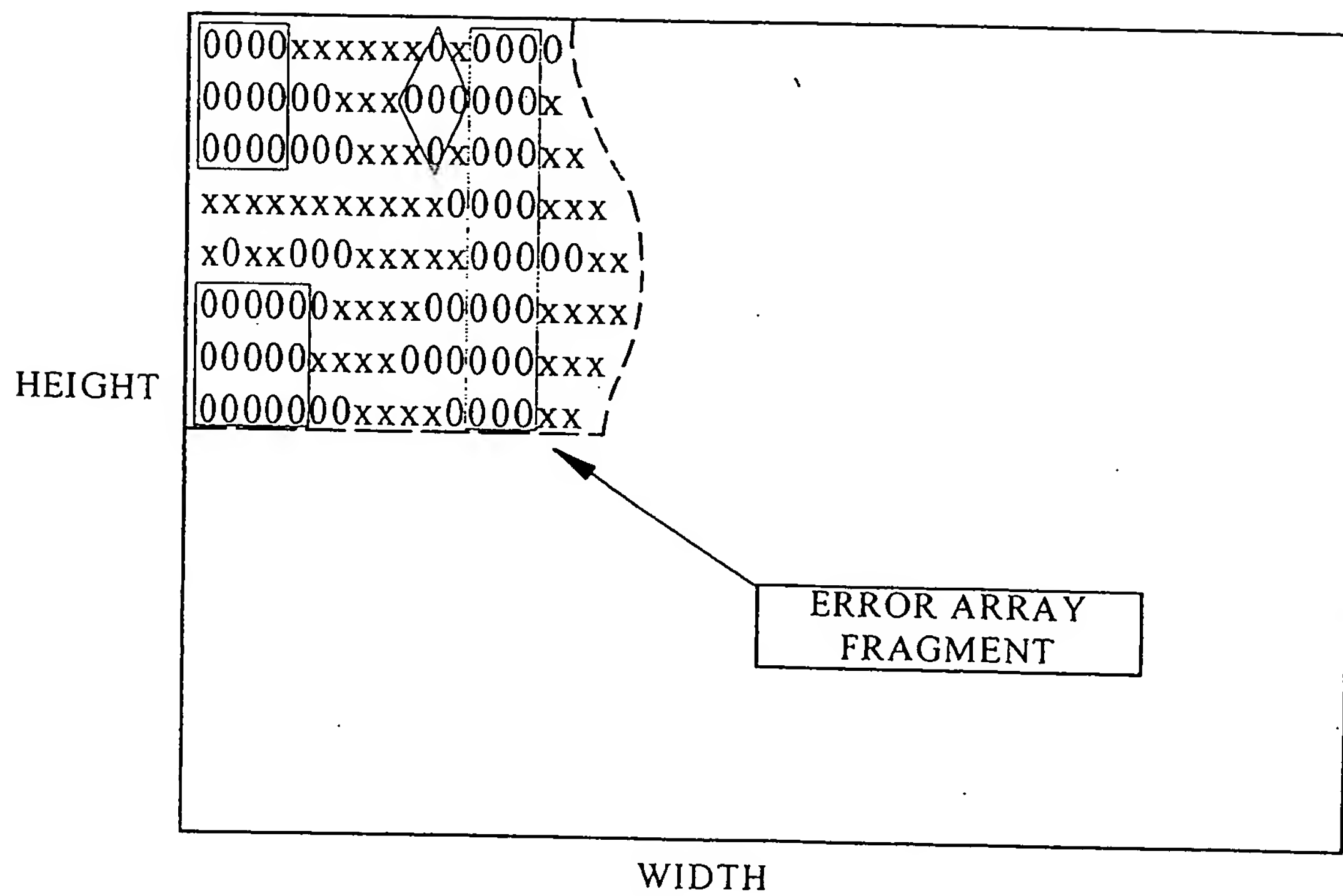
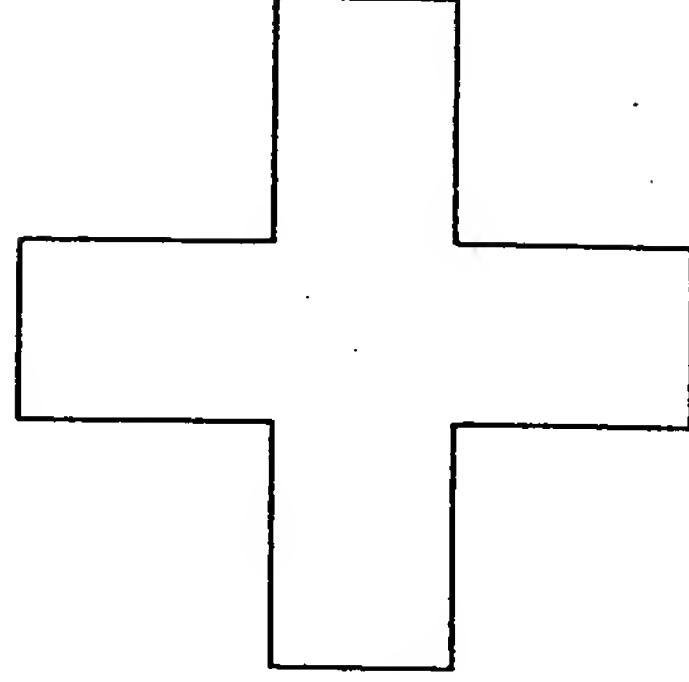
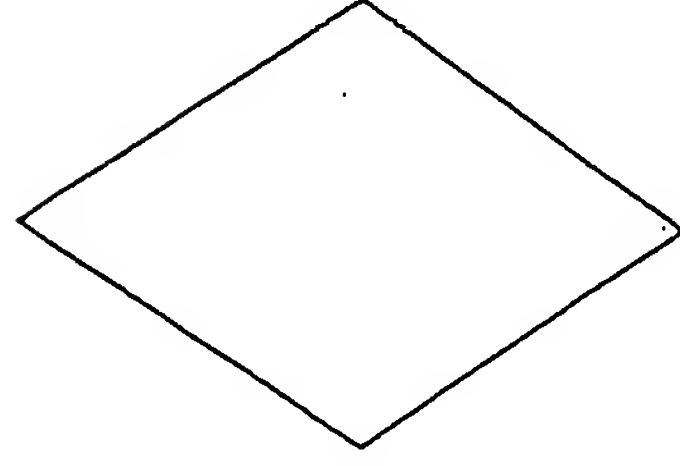
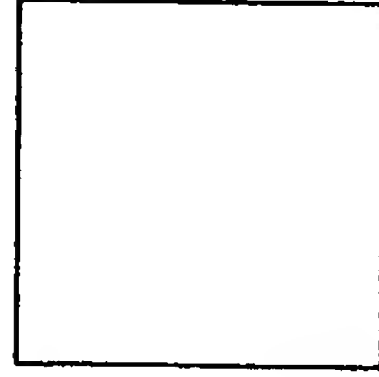
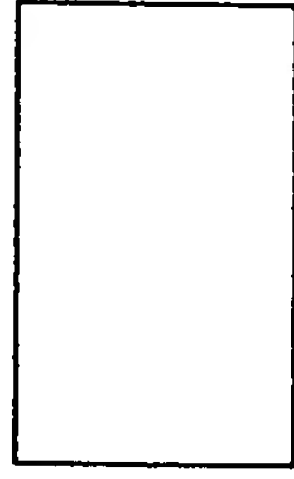


FIG. 9

# GEOMETRIC FIGURE TYPES USED FOR FIGURE COVERING METHOD AND DATA WRITING ORDER

FIGURE TYPES:



DATA WRITING ORDER:

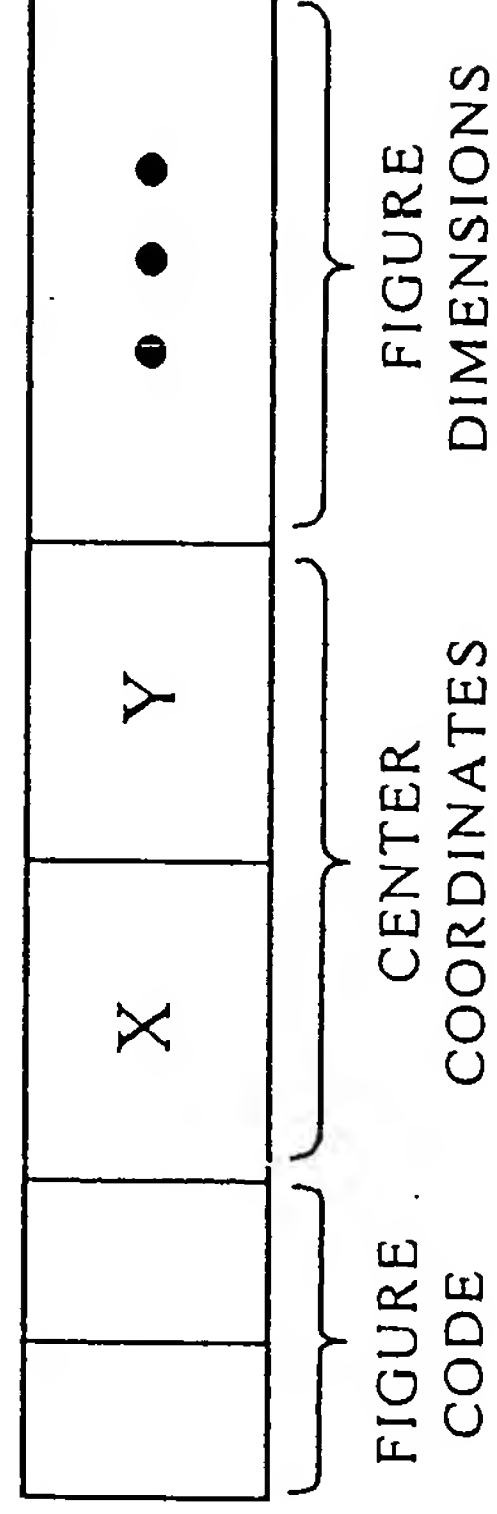


FIG.10

